THE FAMILY MAGAZINE,

OR

WEEKLY ABSTRACT OF GENERAL KNOWLEDGE.

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EARTHQUAKES.

[*Continued.*]

He says that the surface of the ground is prepared by this dry and warm weather for that kind of electrical vibration in which earthquakes consist; while, at the same time, in several places where they have occurred, the internal parts, at a small depth beneath the surface, were moist and boggy. Hence he infers, that they reach very little beneath the surface. That the southern regions are more subject to earthquakes than the northern, he thinks is owing to the greater warmth and dryness of the earth and air, which are qualities so necessary to electricity. It may here be noticed, that, before the earthquakes of London, in 1749, all vegetation was remarkably forward; and it is well known that electricity quickens vegetation. The frequent and singular appearance of boreal and austral *aurorœ*, and the variety of meteors by which earthquakes are preceded, indicate an electrical state of the atmosphere; and the Doctor apprehends that, in this state of the earth and air, nothing more is necessary to produce these phenomena, than the approach of a non-electric cloud and the discharge of its contents on any part of the earth, when in a highly electrified state. In the same way as the discharge from an excited tube occasions a commotion in the human body, so the shock produced by the discharge between the cloud and many miles in compass of solid earth, must be an earthquake, and the snap from the contact the noise attending it.

The theory of M. de St. Lazare differs from the above hypothesis, as the electrical cause. It ascribes the production of earthquakes to the interruption of the equilibrium between the electrical matter diffused in the atmosphere, and that which belongs to the mass of our globe and pervades its bowels. If the electrical fluid should be superabundant, as may happen from a variety of causes, its current, by the laws of motion peculiar to fluids, is carried towards those places where it is in a similar quantity: and thus it will sometimes pass from the internal parts of the globe into the atmosphere. This happening if the equilibrium be re-established without difficulty, the current merely produces the effect of what M. de St. Lazare calls ascending thunder; but if this re-establishment be oppsed by considerable and multiplied obstacles, the consequence is then an earthquake, the violence and extent of which are in exact proportion to the degree of interruption of the equilibrium, the depth of the electric matter, and the obstacles which are to be surmounted. If the electric furnace be sufficiently large and deep to give rise to the formation of a conduit or issue, the production of a volcano will follow, its successive eruptions being, according to him, nothing more in reality than electric repulsions of the substances contained in the bowels of the earth. From this reasoning, he endeavours to deduce the practicability of forming a counter-earthquake, and a counter-volcano, by means of certain electrical conductors, which he describes, so as to prevent these convulsions in the bowels of the earth.

The opinion of Signior Beccaria is nearly similar; and from his hypothesis and that of Dr. Stukely, the celebrated Priestly has endeavored to form one still more general and more feasible. He supposes the electric fluid to be in some mode or other accumulated on one part of the surface of the earth, and, on account of the dryness of the season, not to diffuse itself readily: it may thus, as Beccaria conjectures, force its way into the higher regions of the air, forming clouds out of the vapours which float in the atmosphere, and may occasion a sudden shower, which may further promote its progress. The whole surface being thus unloaded, will, like any other conducting substance, receive a concussion, either on parting with, or on receiving any quantity of the electric fluid. The rushing noise will likewise sweep over the whole extent of the country; and, on this supposition also, the fluid, in its discharge from the surface of the earth, will naturally follow the course of the rivers, and will take the advantage of any eminences to facilitate its ascent into its higher regions of the air.

Such are the arguments in favour of the electrical hypothesis; but since it has been supported with so much ability, an ingenious writer, Whitehurst, in his Inquiry into the original State and Formation of the Earth, contends that subterraneous fire, and the steam generated from it, are the true and real causes of earthquakes. When, he observes, it is considered that the expansive force of steam is to that of gunpowder as twenty-eight to one, it may be conceded that this expansive force, and the elasticity of steam, are in every way capable of producing the stupendous effects attributed to these phenomena.

Among the most striking phenomena of earthquakes which present a fearful assemblage of the combined effects of air, earth, fire and water in a state of unrestrained contention, may be noticed the following:—Before the percussion, a rumbling sound is heard, proceeding either from the air, or from fire, or, perhaps, from both in conjunction, forcing their way through the chasms of the earth, and endeavoring to liberate themselves: this, as has been seen, likewise happens in volcanic eruptions. Secondly, a violent agitation or heaving of the sea sometimes following the shock: this is also a volcanic effect. Thirdly, a spouting up of the waters to a great height—a phenomenon which is common to earthquakes and volcanoes, and which cannot be readily accounted for. Fourthly, a rocking of the earth, and occasionally, what may be termed a perpendicular rebounding: this diversity has been supposed by some naturalists to arise chiefly from the situation of the place, relatively to the subterraneous fire, which when immediately beneath, causes the earth to rise, and when at a distance, to rock. Fifthly, earthquakes are sometimes observed to travel onward, so as to be felt in different countries at different hours of the same day. This may be accounted for by the violent shock given to the earth at one place, and communicated progressively by an undulatory motion, successively affecting different regions as it passes along, in the same way as the blow given by a stone thrown into a lake is not perceived at the shore until some time after the first concussion. Sixthly, the shock is sometimes instantaneous, like the explosion of gunpowder, and sometimes tremendous, lasting for several minutes. The nearer to the observer the place where the shock is first given, the more instaneous and simple it appears; while, at a greater distance, the earth seems to redouble the first blow, with a sort of vibratory continuation. Lastly, as the waters have in general so great a share in the production of earthquakes, it is not surprising that they should generally follow the breaches made by the force of fire, and

appear in the great chasms opened by the earth.—

The most remarkable earthquakes of ancient times are described by Pliny in his Natural History. Among the most extensive and destructive of these, was the one already noticed, by which thirteen cities in Asia Minor were swallowed up in one night. Another which succeeded shook the greater part of Italy. But the most extraordinary one described by him happened during the consulate of Lucius Marcus and Sextus Julius, in the Roman province of Mutina. He relates, that two mountains felt so tremendous a shock, that they seemed to approach and retire with a most dreadful noise. They at the same time, and in the middle of the day, cast forth fire and smoke, to the dismay of the astonished spectator. By this shock several towns were destroyed, and all the animals in their vicinity killed. During the reign of Trajan, the city of Antioch was, together with a great part of the adjacent country, destroyed by an earthquake; and about three hundred years after, during the reign of Justinian, it was again destroyed, with the loss of forty thousand of its inhabitants. Lastly, after an interval of sixty years, that ill-fated city was a third time overwhelmed, with a loss of sixty thousand souls.

The earthquake which happened at Rhodes, upwards of two hundred years before the Christian era, threw down the famous Colossus, together with the arsenal, and a great part of the walls of the city. In the year 1182, the greater part of the cities of Syria, and of the kingdom of Jerusalem, were destroyed by a similar catastrophe; and in 1594, the Italian writers describe an earthquake at Puteoli, which occasioned the sea to retire two hundred yards from its former bed.

MYTHOLOGY.

VULCAN.

"Vulcan was the god of fire, of smiths, and of metals, and the armourer of the gods. He was born of Jupiter and Juno, though, as some say, of Juno only. He was so deformed, that Jupiter kicked him out of heaven; whence he fell into the island of Lemnos, and, as might be expected, was not a little lamed by his fall, having one of his legs broken; and had he not been caught, as he fell, by the Lemnians, he would have broken his neck. As a requital of their kindness, he took up his residence among them for a time, and built his forges, teaching them the various uses of fire and iron. From softening and polishing iron, he received the name of Mulciber, or Mulcifer; and from being cast into Lemnos, he was called Lemnius. He afterwards removed to the volcanic islands of Lipari, near Sicily, where he forged the thunder bolts of Jupiter.

"Nor was his name unheard or unadorned
In ancient Greece: and in Ausonian land
Men call him Mulciber; and how he fell
From heaven they fabled, thrown by angry Jove
From morn
To noon he fell, from noon to dewy eve,
A summer's, day; and, with the setting sun,
Drops from the zenith like a falling star
On Lemnos, the Ægean isle." MILTON.

The beautiful Venus, strange to say! was the wife of Vulcan.

"——— when of old, as mystic bards presume,
Huge CYCLOPS dwelt in Etna's rocky womb,
On thundering anvils rung their loud alarms,
And leagued with VULCAN, forged immortal arms
Descending Venus sought the dark abode,
And soothed the labours of the grisly God.
With radiant eye she viewed the boiling ore,
Heard undismay'd the breathing bellows roar,
Admired their sinewy arms and shoulders bare,
And ponderous hammers lifted high in air:
With smiles celestial blessed their dazzled sight,
And beauty blazed amid infernal night."

But notwithstanding all her beauty, she proved unfaithful to her husband. He desired to marry Minerva, and Jupiter consented, if he could overcome her diffidence; for Jupiter had given him leave, when he made arms for the gods, to choose a wife from among the goddesses. But upon his choosing Minerva, Jupiter admonished her to refuse him, which she accordingly did.

"His most celebrated works are the famous palace of the sun; the armor of Achilles and Æneas; the beautiful necklace of Hermione, and the crown of Ariadne. According to Homer, the shield of Achilles was enamelled with metals of various colors, and contained twelve historical designs, with groupes of figures of great beauty; the seats which Vulcan constructed for the gods were so contrived, that they came self-moved from the sides of the apartment to the place where each god seated himself at the table when a council was to be held.

"Vulcan wrought a helmet for Pluto, which rendered him invisible; a trident for Neptune, which shook both land and sea; and a dog of brass for Jupiter.

"Vulcan also fabricated palaces of gold for the celestial deities.

"At Rome were celebrated the Vulcania, feasts in honor of Vulcan; at which they threw animals into the fire to be burnt to death. The Athenians instituted other feasts to his honor called Chalsea. A temple besides was dedicated to him upon the mountain Ætna, from which he was sometimes called Ætnæus. This temple was guarded by dogs, whose sense of smelling was so exquisite, that they could discern whether the person that came thither were chaste and religious, or wicked. They used to meet, and flatter and follow the good, esteeming them the acquaintance and friends of Vulcan their master.

"It is feigned that the first woman was fashioned by the hammer of Vulcan, and that every god gave her some present, whence she was called Pandora. Pallas gave her wisdom, Apollo the art of music, Mercury the art of eloquence, Venus gave her beauty, and the rest of the gods gave her other accomplishments. They say also, that when Prometheus stole fire from heaven to animate the man which he had made, Jupiter was incensed, and sent Pandora to Prometheus with a sealed box, but Prometheus would not receive it. He sent her with the same box again to the wife of Epimetheus, the brother of Prometheus; and she, out of a curiosity natural to her sex, opened it, which as soon as she had done, all sorts of diseases and evils, with which it was filled flew among mankind, and have infested them ever since. And nothing was left in the bottom of the box but Hope.

"Vulcan's servants were called Cyclops, because they had but one eye, which was in the middle of their foreheads, of a circular figure: Neptune and Amphitrite were their parents. The names of three of them were Brontes, Steropes, and Pyracmon: besides these, there were many more, all of whom exercised the art of smithery under Vulcan, as we are taught by Virgil.—Æn. 8.

NATURAL HISTORY.

PHYSIOLOGY.

Pursuing the subject of natural history in regular order, we come next to the structure of the human frame, together with the functions of its various parts. We copy the following from the "Family Encyclopedia, or Compendium of Universal Knowledge," by Charles A. Goodrich.

HUMAN STRUCTURE.—The animal frame is composed of bones, muscles, brain, nerves, arteries, veins, cartilages, membranes, glands,—also of chyle, blood, milk, &c.

BONES are white, hard, brittle, and almost insensible; they support and form the stature of the body, defend its viscera, and give power to the various muscles. The number of bones in the human body is generally 240: but in some individuals, who have two additional bones in each thumb and great toe, they amount to 248.

TEETH, a set of bones, situated in the upper and lower jaws, for the purpose of mastication. In adults, they are 32 in number, or 16 in each jaw-bone, consisting of 4 cutting, 2 canine, and 10 grinders.

The teeth are of various sizes, being arranged in the following order; four in front, termed cutting teeth, on each side of which is a sharp pointed canine or eyetooth: adjoining to these are five grinders on each side, the last of which is denominated the tooth of wisdom, because it seldom appears before the 25th year. The front and eye-teeth are furnished with only one root each; the two first grinders with two; and the hindermost generally with three or four; which may in most persons be ascertained by the number of small tubercles on the crowns. The tooth is divided into two principal parts; viz. the crown, which projects above the gums, and the root, that is enclosed within the sockets. The crown is a hard, fine, glossy white enamel, serving to defend the substance against external injury. The root is open at the bottom, where it is connected with vessels and nerves, by which it receives nourishment, life and sensation.

MUSCLES, of which it is said there are 446 in the human body, dissectable and describable, are parts of the animal body destined to move some other parts, and hence are termed the organs or instruments of motion. They are composed of flesh and tendinous fibres, and contain vessels of all kinds.

FLESH is the fibrous or muscular part of the animal body: muscular flesh is composed of a great number of fibres or threads; it is commonly of a reddish or whitish color. The ancients distinguished five different kinds of flesh, but the moderns admit one only, fleshy and muscular parts being with them the same.

SKIN is the general covering of the body. Though apparently a simple membrane, it consists of several parts. The outermost is the scarf-skin: it has no nerves, and is extended over every part of the true skin, except where the nails are; it is this skin which is raised by the application of a blister; it is the thickest in those parts accustomed to labor or pressure, as the hand and foot. The *rate mucosum* is a web-like mucous substance, lying between the scarf and true skin, which chiefly gives the color to the exterior of the human body. It is black in the negro; white, brown, or yellowish in the European. The *true skin* is a very sensible membrane extended over all parts of the body, and has nerves terminaitng so plentifully on its surface, that the finest needle cannot prick it without touch'ng some of them.

ABSORBENTS are a set of small colorless vessels, which pervade the whole surface of the body both externally and internally. Their office is to take up what ever fluids are effused into the different cavities, and to pour out their contents for particular uses. For the purpose of absorption, they are highly irritable at their extremities, and are very replete with valves, to prevent the escape or return of their contents. Their number, when compared with other vessels, is four times greater; and they are divided into lymphatics and lacteals, according to their respective offices, the former conveying lymph, the latter chyle.

CARTILAGES, or gristles, are smooth, solid, flexible, elastic parts, softer than bone, and seem to be of the same nature; some even become bones by time; some again are much softer, and partake of the nature of ligaments. They terminate those bones that form moveable joints, and in some instances serve to connect bones together. In the nose, ears, and eyelids are cartilages.

A MEMBRANE is a thin, white, flexible, expanded skin, formed of several sorts of fibres interwoven together. The use of membranes is to cover and wrap up the parts of the body; to strengthen them, and save them from external injuries; to preserve the natural heat; to join one part to another; to sustain small vessels, &c,

A GLAND is an organic part of the body, destined for the secretion or alteration of some peculiar fluid, and composed of blood-vessels, nerves and absorbents. The glands are designated either according to the peculiar fluids which they contain, as mucous, sebaceous, lymphatic, salival, and lachrymal glands; or their structure, as simple, compound, conglobate, and conglomerate glands. The vessels and nerves of glands always come from the neighbouring parts, and the arteries appear to possess a higher degree of irritability. Glands appear to the eye as whitish membranous masses.

The BRAIN consists of the whole of that mass which, with its surrounding membranes and vessels, fills the greater part of the skull. It is said to be larger in man, in proportion to the nerves belonging to it, than in any other animal. It consists of the cerebrum, cerebellum, tuber annulare, and medulla oblongata; the whole weighs usually about forty-eight or fifty ounces; but its weight varies in different subjects.

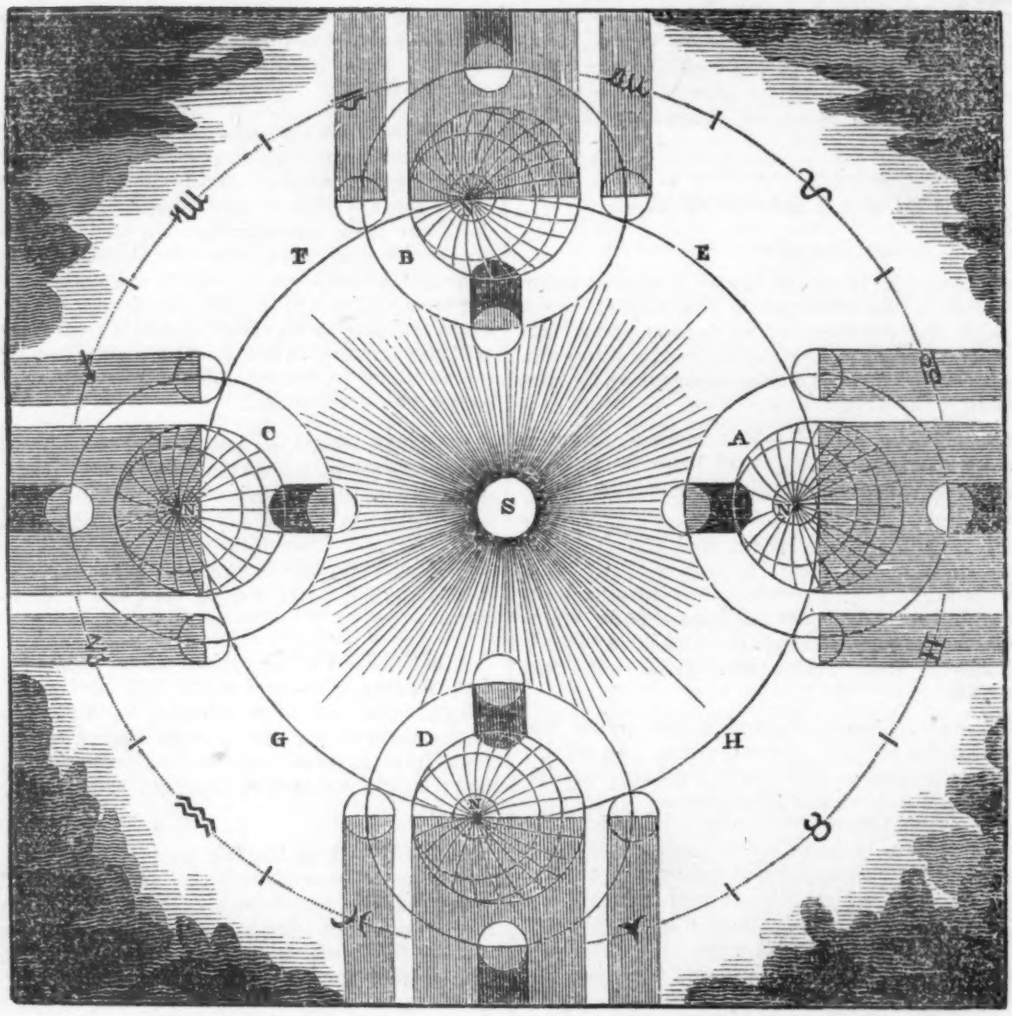
The CEREBRUM, which is by far the largest portion, is contained in all the upper part of the skull; it is divided into a right and left hemisphere by a membrane termed falx. Each hemisphere is also again subdivided into three lobes, the two lying in the front portion of the skull being the largest. It is surrounded with membranes, and accompanied with blood-vessels.

The CEREBELLUM, or little brain, is situated in the back part of the skull beneath the posterior lobes of the cerebrum, from which it is separated by a membrane called the tentorium. It is divided by the falx minor into two hemispheres, which are again subdivided into lobules.

The Tuber annulare is of a roundish form, about an inch in length, and of the same width. From the tuber annulare arises the medulla oblongata, which forms the beginning of the spinal marrow.

[*To be Continued.*]

ASTRONOMY.



VIEW OF THE EARTH IN HER ORBIT ROUND THE SUN,

(Showing the several relative positions by which the seasons are produced.—The moon is also represented in her orbit round the earth.)

> More distant still our *Earth* comes rolling on,
> And forms a wider circle round the *Sun* ;
> With her the Moon, companion ever dear!
> Her course attending through the shining year.
>
> BAKER.

THE next planet to *Venus* in the order of the System, is the EARTH on which we live; which may be considered of second rate importance, being much inferior in magnitude to Jupiter, Saturn, and Uranus, but superior to Mercury, Venus, Mars, and the four new planets.—But small as the *Earth* is when compared to some of the other planets, it is to us of the highest importance: we wish only to attain knowledge of others, that we may find out their relation to this, and thence learn our connexion with the universe at large. In our preceding numbers we have spoken of the Earth in general, but here we wish to come to particulars, with the view of leading youth, by gentle and easy steps, from the first principles of the science to those parts which are the most interesting and useful. And as the Earth we inhabit is constantly subject to our observation, and is that with which we are best acquainted, a more full description of it than we have hitherto given will naturally excite curiosity and attention, and thereby lead on to a complete development of the origin, rise, progress, and history of *literature*, *science*, and the *arts*. In the earliest ages of the world, mankind knew nothing as to its form and shape; and even in the present enlightened age, it is not unusual to meet with persons whose ideas in this respect are far from the truth. Those who have not been in the habit of considering this subject in an astronomical point of view, have still a very confused notion of the shape of the Earth, and also as to its position in the heavens.

The *Earth*, like the other planets, is not a *perfect* sphere, its equatorial* diameter exceeding in length its axis by more than thirty miles; the former being 7964 miles, and the latter about 7930; her distance from the *Sun* is 95,173,000 miles; and she traverses the whole of her orbit in 365 days, 6 hours, 9 minutes, which constitutes her year.

The *axis* of the Earth is not perpendicular to the plane of the *Ecliptic*,† but inclined to it at an angle of 32° 28′: round this axis she revolves in 23 hours, 56 minutes, 4 seconds, which is the length of the astronomical day.

The inclination of the Earth's axis is the principal cause of the variety or change of seasons; for as the axis of the *Earth* always preserves its parallelism, in her

* Equatorial, belonging to the equator, an imaginary line which divides the world into two equal parts, called the Northern and Southern Hemispheres. When the sun comes to this circle, the days and nights are equal all round the globe.

† The Ecliptic is a great circle of the sphere, in which the Sun always appears to move; so called because *Eclipses* generally happen when the Moon is in or near this circle. It is divided into 12 equal parts, which are called *signs*; each of which takes its name from that constellation which, at the time the names were given, was situated near the portion of the Ecliptic it denominates

revolution round the *Sun*, at one part of her orbit she receives most of the light and heat on her northern hemisphere, and at another part on her southern, according as her north or south pole is turned towards the sun; while in two points of her orbit, both hemispheres are equally enlightened. The above diagram will best explain the cause of the change of seasons, and of the lengths of the days and nights.

Let A, B, C, D, represent the Earth in four different parts of her orbit, equi-distant from one another;—N for *axis* and the *north pole*, and S the *sun*, nearly in the centre of the *Earth's* orbit. As the Earth goes round the sun, according to the order of the letters A, B, C, D, her axis N keeps the same obliquity, and is exactly parallel in every part of her orbit.

When the *Earth* is at A, its north pole inclines towards the sun, and brings all the northern places more into the light than at any other time of the year. But when the Earth is at C, in the opposite time of the year, the north pole declines from the sun, which occasions the northern places to be more dark than in the light, and the reverse at the southern places.

When the *Earth* is either at B or D, she inclines not either *to* or *from* the sun, but lies sideways to him, and then the poles are in the boundary of light and darkness; and the sun being directly over the equator, makes equal day and night at all places.

When the Earth is at E, it is half way between the *summer solstice*‡ and *autumnal equinox*; and when it is at F, it is half way between the *autumnal equinox* and the *winter solstice;* at G, half way from the winter solstice to the spring equinox; and at H, half way from the spring equinox to the summer solstice.

From this it is evident, that when the Earth is at A, the *north pole* is enlightened, and the *southern* in darkness, and that exactly the reverse is the case when the *Earth* arrives at C, for then the *south pole* is enlightened and the *north* in darkness; in the former case, the northern hemisphere has *summer* and the longest day, while the south has *winter* and the shortest day; in the latter every thing is completely reversed.

That the Earth is of a globular form, may be inferred from analogy; as all the other heavenly bodies which are visible to us are globes, there is little reason to doubt that the earth is so likewise. Of this, however, there are demonstrative proofs.

The motion of the Earth in her orbit round the sun is called her *annual motion*, and that round her axis, her *diurnal motion*, which, at the *equator*, is about 1042 miles an hour.

These two motions, although constantly carried on together, are not sensible to us, because they are so equable, interrupted by no impediments, and because every thing on the Earth's surface, and the atmosphere itself, partake of these motions.

The Earth is surrounded by a compound fluid substance called the *atmosphere*, which consists of air mingled with *aqueous vapours** and other exhalations from her surface. This atmosphere has a *refractive*† power, by which the rays of the sun are bent out of a straight line, and occasion a degree of light after that luminary is below the horizon. This faint light is denominated *twilight*.

It has already been observed, that the *Orbit* of the Earth is not a perfect circle, but inclined to the *Elipse*, and that the Sun is not exactly in its centre. This occasions the Earth to be seven days longer in passing through one half of her orbit than she is in traversing the other. The *Orbit* of the Earth is placed between those of *Venus* and *Mars*.

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‡ Is that time when the sun is at the greatest distance from the equator, and is thus called because he then appears to stand still, and not to change his distance from the equator for some time, which appearance is owing to the obliquity of our sphere, and which those living under the equator are strangers to. Solstice is from the Latin words *sol*, sun, and *sto*, to stand.

* *Aqueous vapours*, watery particles. (Aqueous, watery;—vapour, a particle.—Vapour, a steam, a fume;—a vain imagination.)

† *Refractive*—having the power of *refraction*. Refraction is the deviation of a moving body from its direct course, occasioned by the different density of the medium it moves in; or, it is a change of direction occasioned by a body's falling obliquely out of one medium into another of a different density.

OX-CHASE IN BRAZIL.

This hazardous sport is common in Brazil, where it called *Throwing the Lasso*. The most spirited description of its enterprise is found in Mr. Luccock's valualbe Notes on Brazil."

"After a ride of three or four miles on a large open plain, (says Mr. L.) we found about 400 head of cattle. We rode gently round to bring them into a more com-

pact body, and made the animal which was to be chased distinctly known to every individual of the party. Our settled object was to drive him to the house; and to render the sport as complete as possible, the *lasso** was not to be used until there appeared a probability that he would otherwise escape. Some of the people then dashed into the midst of the herd, attentively observing the selected animal. One half of the oxen were thus driven at once from the spot, and others which chose to do so were permitted to follow without molestation; but wherever the victim turned, a horseman met him and stopped his career. The work was easy until the remaining group was reduced to about twenty, which then made violent attempts to rejoin their comrades, and fiercely attacked the huntsmen who intercepted them. In a short time, four of them being hard pressed, plunged into some watery ground about two miles from the house, and among them was the object of the chase.—When driven from the water, this small number were more harrassed than before, and perceiving their danger, exerted themselves with redoubled violence. Sometimes we were obliged to ride hard; and great coolness and address were necessary to prevent their escape behind us and into a wood, which we were now approaching.—In this last respect our efforts were vain: they gained this refuge, and we could no longer act in concert. The wood was full of thick bushes of myrtle, and many trees spread their arms horizontally seven or eight feet from the ground. It was matter of high gratification as well as wonder, to observe how our huntsmen rounded the bushes, and bent under the branches, so as sometimes to hang on the sides of their horses. Though unable to follow, I soon encountered our chief, who had made an unsuccessful cast with his *lasso*, and was disentangling it from the branches of a tree. I shall never forget the ardour and rapidity with which he afterwards darted and wheeled among the trees, nor lose the conviction fixed upon my mind, what execution such men, so trained, must be capable of in a country like this. My musings were soon interrupted by reaching the beach, and seeing at a distance our young hero, with his ox securely attached to his horse by the lasso, and leading the captive towards the house. The instrument had gone round his horns, and was fixed close to the crown of his head. The animal thus entangled advanced with the most malicious vexation, and made many ferocious efforts to gore the horse which had before pursued and now led him; but the wary creature, which had often before been yoked to an unnatural and violent mate, kept his eye upon the ox, and pulled at the lasso so as to keep it always on the stretch, and himself two springs in advance. In his precautions he was greatly assisted by his rider, who with equal care watched the maddening spirit of the beast, and gave signals to the horse. Convinced at length that his attempts to gore his leader were vain, the ox became sullen, and was partly dragged onward. While he was in this mood, the horse passed to the right of a detached bush, and the ox by a sudden spring got nearly abreast of him on the left: thus, the lasso was brought over his back, and he was enabled to employ his utmost might to draw the horse round the bush; the horse also used all his power to counteract this manœuvre; and thus the great strength of the lasso was proved. By this time the whole party was again collected, and another lasso applied to assist in conducting the captive, which, seemingly conscious that he was completely subdued, walked along quietly. A boat had just reached the beach; and the people were still on board, when the treacherous animal, as soon as he came near enough, made an unexpected attack, and caused them to tumble one over another into the water, to the great amusement of the spectators.

"Returning to the hut after a chase of three hours, milk and fruit were served to us in abundance; while the beast was taken from his former bondage and tied to a post, where I found him bellowing with madness, and still furiously striving to release himself. A man now came forward with an instrument called a *facam*, somewhat resembling both a large carving-knife and a short sword; and, warning every one to be on his guard, passed near the heels of the ox, and endeavoured by a back-handed stroke to hough him. The attempt was clumsily made, and the beast though wounded was not disabled. Another took the instrument, and used it with greater effect; when the ox gave a desperate kick at the operator, and snapping the tendon fell on his haunches. A third then drew a sharp knife across his throat: blood copiously followed; and with a deep bellow, expressive of rage and agony, he yielded up his life. Immediately the people set about skinning the beast, and preparing a part of him for dinner. The former operation was performed in a workman-like manner; and the skin as it was taken off, being stretched upon the ground, preserved the flesh from blood and dirt. During this process, fires had been kindled, and had burned down to clear embers. Slices of flesh were then cut off from the ribs, as the choicest part, for the master and his guests, and roasted at a fire apart; afterwards, the attendants helped themselves as they pleased, and cooked their portion after their own modes.

"Horses are trained for the exercises of the field, by fastening a dry hide to the back part of the saddle, and allowing it to trail on the ground. As the horse moves, the hide rattles, and the noise alarms him: he attempts to fly, when it beats against his heels, and he kicks at it violently; but soon convinced that all his alarm and rage are fruitless, he learns to be patient and quiet. In this state, a person mounts him, and compels him to move forward; at first gently, afterwards at an increased pace. He begins with trampling upon the hide; but this incommodes him, perhaps almost throws him down backwards; he then sets down his feet more carefully and safely. The contrivance induces him also to keep an eye turned on the object behind; while the rider takes him over rough and boggy ground, obliging him at the same time to look forward and mark where he is going. Thus he forms a habit of quickly discerning danger and avoiding it, from whatever quarter it may come. So much are the Brazilian horses in general fenced against alarms, that I hardly ever met with one of the description which we call skittish."—*Cabinet of Curiosities.*

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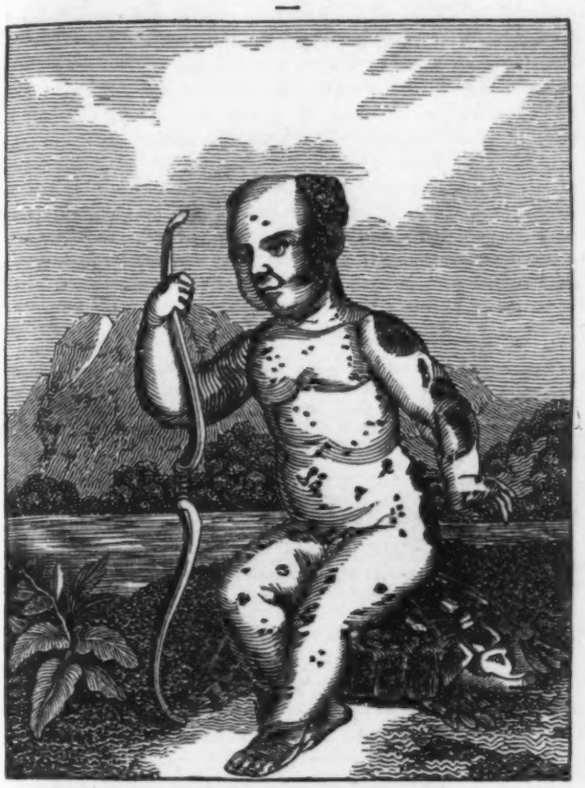
* "The *lasso* is made of narrow thongs, plaited in the same way as the bridles, and is about 7 or 8 yards long. One end of it is firmly fixed to the hinder part of the saddle, generally on the right side: at the other end is an iron ring, about two inches in diameter. The horseman about to use the *lasso* forms a sort of running noose by passing a portion of it through the ring; this is taken in the right hand, so as that the ring may be at the opposite part of the circle; the noose is then swung with care over the head, until the extreme part of it, including the ring, acquires a considerable momentum. The instrument thus prepared as the man advances towards his selected victim, is in due time discharged, carries off the remainder of the string, which before hung loosely in coils on the fingers of the left hand, and seldom fails to entangle the beast. A well-trained horse, though at full speed when the *lasso* is thrown, instantly stops, and turning round, pulls against the animal, which is now attached to him. The balls are three in number, round, and nearly three inches in diameter. The external part of each is a sort of purse made of hide, rendered pliable by soaking: the purse is filled with sand, and the aperture drawn close. In drying, the leather contracts, and the whole becomes as hard as a stone. To each ball a string is attached three or four feet long, made of plaited thongs, like the lasso; and the three strings are united by a knot, at two feet distance from the balls. This may be called the handle of the instrument; for the person using it takes the knot in his right hand, and having given it the necessary velocity, by swinging it over his head with all his might, throws it at the legs of the horse or ox which he wishes to secure. In their progress, the balls spread to the utmost distance which the strings will allow, and, reaching the leg, generally pass round it; and though, perhaps, only slightly entangling the animal, sufficiently impede its flight."—The custom was derived from the Maraocato and other Indian tribes, who used the lasso and balls with great effect against Mendonca, when he landed, and founded the city of Buenos Ayres.

BIOGRAPHY.



THE SPOTTED NEGRO BOY.

George Alexander Gratton, the Spotted Negro Boy, whose portrait embellishes our present number, was well known to the inhabitants of the metropolis and its vicinity about 12 years ago, at which time he was exhibited at the fairs by Richardson, a famous purveyor of objects of entertainment at those places of popular festivity.

Both the parents of George Alexander were black, and natives of Africa. He was born in the island of St. Vincent, on the plantation of Mr. Alexander, of which one Gratton was overseer, about the month of June, 1808; and the curiosity of his appearance was such, that he was shown in the capital of his native island, at the price of a dollar each person. It is added, that the superstitious prejudices of the negroes placed his life in some danger, and that he was on that account shipped for England. Probably the prospect of a profitable disposal of him in this country, was an equally powerful motive for his removal.

The child was only fifteen months old, when, in September, 1809, being brought to Bristol, in the ship called the Friends of Emma, Mr. Richardson, the proprietor, as before intimated, of a travelling theatre, was applied to, and an engagement entered upon, by which he was consigned to Mr. Richardson's care for 3 years.

His skin and hair were every where party-coloured, transparent brown and white. On the crown of his head, several triangles, one within the other, were formed by alternations of the colours of his hair. In figure and countenance he might truly be called a beautiful child. His limbs were well proportioned, his features regular and pleasing, his eyes bright and intelligent, and the whole expression of his face both mild and lively. His voice was soft and melodious; and as his mind began to develope itself, much quickness and penetration were betrayed.

When nearly five years of age, he was unfortunately attacked with a swelling in the jaw, and died on the 3d of February, 1813. Mr. Richardson, who had always treated him with a parental kindness while alive, was sincerely afflicted at his death. Soon after he had been placed with him, he had caused him to be baptized at the parish church of Newington, in the county of Surrey, and on his death, he was buried at Great Marlow, in Buckinghamshire, in a brick vault, which Mr. Richardson caused to be purposely constructed. Mr. Richardson, fearful that the body might be stolen, had previously kept it unburied for the space of three months.

In the vestry of the church of Great Marlow hangs a fine painting of this extraordinary natural phenomenon, executed from the life by Coventry, and presented to the corporation of Buckingham by Mr. Richardson; who finally closed his displays of affectionate regard for a child which was not originally more recommended to his attention by his curiosity, than he was afterwards endeared to him by disposition and manners, by erecting a monument to his memory at Great Marlow, and placing upon it the following inscription and epitaph:—

TO THE MEMORY

OF

GEORGE ALEXANDER GRATTON,

THE SPOTTED NEGRO BOY,

From the Carribee Islands, in the West Indies, who died Feb. 3d, 1813, aged four years and three quarters.

This Tomb, erected by his only Friend and Guardian, Mr. John Richardson, of London.

Should this plain, simple tomb attract thine eye,
Stranger, as thoughtfully thou passest by,
Know that there lies beneath this humble stone
A child of colour, haply not thine own.

His parents born of Afric's sun-burnt race,
Though black and white were blended in his face,
To Britain brought, which made his parents free,
And shewed the world great nature's prodigy.

Deprived of kindred that to him were dear,
He found a friendly Guardian's fostering care,
But, scarce had bloomed, the fragrant flower fades,
And the loved infant finds an early grave.

To bury him his loved companions came,
And dropped choice flowers, and lisped his early fame
And some that loved him most, as if unblest,
Bedewed with tears the white wreath on his breast.

But he is gone, and dwells in that abode
Where some of every clime must joy in God!

Cabinet of Curiosities.

EXPLANATION OF WORDS AND PHRASES.

Ad ogni uccello—suo nido e bello. Ital. Proverb. —"With every bird its own nest is charming."

Adolescentem verecundum esse decet. Lat. Plautus.—"It becomes a young man to be modest."

Ad populum Phaleras: ego te intus et in cute novi. Lat. Persius.—"Away with those trappings to the vulgar; I know thee both inwardly and outwardly."—I know the man too well to be deceived by appearances.

Ad quæstionem juris respondeant judices, ad quæstionem facti respondeant juratores, Lat. Law Maxim.—"Let the judges answer to the question of law, and the jurors to the matter of fact."

Ad quod damnum. Law Lat.—"To what damage." —A writ which ought to be issued before the grant of certain liberties, such as a fair or marked, ordering the sheriff to inquire what damage the county is liable to suffer by such grant. The same writ is also issued for similar inquiry with respect to lands granted to religious houses or corporations, for turning highways, &c.

Ad referendum. Lat.—"To be further considered." —A diplomatic phrase borrowed from the States of Holland, and now used proverbially to imply a slowness of deliberation and decision.

Adscriptus glebæ. Lat.—"Attached to the soil."—Disposable with the land. This is now the wretched description of the peasantry in Russia. It was formerly so in other countries.

POETRY.

SWEET HOME.

'Mid pleasures and palaces though we may roam,
Be it ever so humble, there's no place like HOME;
A charm from the skies seems to hallow us there,
Which sought in this world is not met with elsewhere.
Home, home—sweet, sweet home!
There's no place like home,
There's no place like home.

An exile from home, splendor dazzles in vain,
And I sigh for my lonely thatch'd cottage again;
For though pleasure may greet me wherever I roam,
Still one bright thought must beam on my dear native home.
Home, home—sweet, sweet home!
There's no place like home,
There's no place like home.

MISCELLANY.

BRAHMINICAL WONDERS.

According to Lieutenant Wilford, the Brahminical Puranas state the circumference of the earth at 2,456,000,000 British miles; whereas, according to our calculation, it does not exceed 24,000 miles. These works also tell us of mountains 491 miles high; of a king reigning 27,000 years; of Vaisvaswatu having lived 3,892,888 years ago, and whose reign lasted 1,728,000 years. The civil list and droits are not stated. Also, of an island in the middle of the earth, 400,000 French leagues long, and as many broad; and of a mountain in that island, 400,000 leagues high, and 32,000 wide; of other mountains, 40,000 and 280,000 leagues high. These latter wonders are in the Bagavadam: and, in the same Puranas, there is a tree mentioned, 4,400 leagues high: and again, an island which is 3,200,000 leagues in extent: and another surrounded by a sea of milk, rather more than 12,000,000 of leagues in circumference. These things are taught by the Brahmins as sacred truths, to the people who believe them. The eccentricities, however, just pointed out, do not come up to those of a host of British scholars, who set these childish legends down as "enchanting books;" and that the "lover of science, the antiquary, the historian, the moralist, and the man of taste, will obtain an inexhaustible fund of information and amusement!"

Cabinet of Curiosities.

CHINESE EMPIRE.

This Empire, says the Chinese Repository, stands at this moment a stupendous anomaly, and beyond all controversy presents the wildest and most interesting field of research under heaven. A vast domain, stretching from East to West more than 3000 miles, and from North to South 2000 and upward—and, with the exception of the Russian establishment at Pekin consisting of only ten persons, and a very narrow place at Canton and Macao, foreigners can by no means be permitted to enter and reside in it.

LADY MARY WORTLEY MONTAGUE.

As Lady Mary Wortley Montague was walking through the gardens at Stow with a party, she was much teased by an impertinent young coxcomb, who was continually making some foolish observations to her. On coming to one of the temples, over which there was an inscription, she took advantage of this opportunity to expose his ignorance and put him to silence. "Pray, sir," said she, "be kind enough to explain that inscription to us." "Madam," said the young gentleman, with an affected air, "I really do not know what it means, for I see it is *dog* Latin." "How very extraordinary it is," said Lady Mary, "that *puppies* do not understand their own language!"—*Ib.*

Some *reputed* saints that have been canonized, ought to have been cannonaded; and some *reputed* sinners that have been cannonaded, ought to have been canonized.

LADY WALLACE.

Lady Wallace, who was once celebrated in Scotland for wit and beauty, happening to be at an assembly in Edinburg, a young gentleman, the son of his majesty's printer, who had the patent for publishing Bibles, made his appearance, dressed in green and gold. Being a new face, and extremely elegant, he attracted the attention of the whole company. A general murmur prevailed in the room, to know who he was: Lady Wallace instantly made answer, loud enough to be heard by the stranger—"Oh, don't you know him? It is *young Bible*, bound in *calf*, and *gilt*, but *not lettered.—Anecdote Library.*

ITEMS OF NEWS.

The engrossing topic in the British Parliament, was West India slavery. It seemed to be agreed on all hands that slavery must be abolished, and that the planters must be remunerated: the only question that remained to be decided was, the amount of compensation to be allowed to them.

There had been a great meeting at Birmingham in opposition to the present British Ministry, amounting to 80,000. It was addressed by O'Connell and others.

An official detailed report of the deaths by cholera has been published by the authorities of Havana, in a pamphlet of 100 pages. Total number of deaths, 8253.

Edmund Kean, the great Tragedian, died on the 15th May, aged 45.

General Coffee died on the 7th inst. in the 62d year of his age, at his residence near Florence, Alabama..

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*** Letters should be addressed thus: Editor of the Family Magazine, 222 William Street, New York.

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